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DOGMI
MINERALS PROGRAM
FILE COPY

November 6, 1990

TO: Wayne Hedberg, Permit Supervisor

FROM: Holland Shepherd, Reclamation Specialist *DWH for HNS*

RE: Review of Barrick's Conceptual Closure Plan for Dump Leach No. 3,
Barrick Mercur Mine, M/045/017 - 88(1), Tooele County, Utah

I've looked over Barrick's September 24, 1990 submittal, addressing decommissioning and reclamation plans for dump heap No. 3, and have the following comments:

1. Page 2 of the submittal describes the final slopes of the heap as having 1.5h:1v, 180 foot slopes. This final slope configuration will be too steep to achieve an acceptable revegetation cover on the dump cap. It is of critical importance that the integrity of the cap be maintained, to prevent leachate buildup in the heap. Without a well established plant cover, the cap may be jeopardized.

I spoke to Glen Eurick, over the phone last Thursday, about this situation. He pointed out two very important limiting factors to grading these slopes to something greater than 1.5:1: 1) A gentler slope would mean pushing leach waste material beyond the edge of the liner, hence no liner protection from leachate formation; and 2) material pushed beyond the edge of the liner would block the proposed drainage pathways from Meadow and Dead Horse Canyon, located on the east and west sides of the dump leach No. 3.

We need to ask the operator to address this problem and come up with an alternative to the present draft plan. Several possibilities exist: 1) The operator not be allowed to stack so much material on the dump, such that a final grade of at least 2:1 cannot be obtained; 2) we require that the operator utilize a proven steep slope stabilizing reclamation method, such as netting and anchoring material to the dump service which will keep topsoil in place until plant establishment can take place. The main

Page 2
Barrick Mercur Mine
M/045/017 - 88(1)
November 6, 1990

fallback to this is that topsoil cannot be applied to slopes having an angle of 1:5h:1v; 3) we require regrading to 2:1, and develop an alternative to the problem of blocking the stream channels and pushing material off the liner. The material pushed off the liner could be neutralized to eliminate the cyanide problem. The 4 foot clay and soil cap over the material would inhibit leachate formation, and thereby metals mobilization. New designs would be required to account for the new stream channels needed to divert runoff around the reclaimed heap; and 4) remove enough material from the top of the dump at final reclamation to allow for 2.5:1 to 2:1 slopes. The excess material, after neutralization, could be placed somewhere else, i.e. a pit or other previously disturbed area on site.

2. The operator needs to address, in the current MRP, the status of topsoil materials pushed off the road connecting dump leach No. 3 and the tailings pond. According to conversations with mine staff on September 5, 1990, this material is to be pulled back onto the road at final reclamation. This material and its intended purpose, needs to be identified in the Plan.

jb
cc: Tony Gallegos
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